

WHAT IS CLAIMED IS:

1. A method for communicating between a first private network and a second private network configured from nodes in a public network, comprising:
 - 5 receiving a packet from a source node in the first private network;
 - determining whether the packet is destined for the second private network; and
 - forwarding the packet to a destination node in the second private network based on the determination.
- 10 2. The method of claim 1, said forwarding comprising:
 - obtaining an address mapping corresponding to the destination node based on the determination; and
 - sending the packet to the destination node using the address mapping, the address mapping reflecting a relationship between an internal address for the destination node for use in
- 15 3. The method of claim 2, said sending further comprising:
 - communicating among nodes in the second private network and an external address for the destination node suitable for communicating over the public network.
- 20 4. The method of claim 2, said sending further comprising:
 - adding the external address to the packet.
5. The method of claim 2, said sending further comprising:
 - encrypting the packet.

5. The method of claim 2, said obtaining comprising:
accessing the address mapping based on a determination that the packet is destined for the
second private network.

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6. The method of claim 1, said determining comprising:
determining whether an address mapping exists for a destination address in the packet.

7. A method for communicating between a first private network and a second
10 private network configured from nodes in a public network, comprising:

receiving a packet from a source node in the first private network;
determining whether the packet is destined for the second private network;
obtaining an address mapping corresponding to a destination node in the second private
network based on the determination; and
15 sending the packet to the destination node using the address mapping, the address
mapping reflecting a relationship between an internal address for the destination node for use in
communicating among nodes in the second private network and an external address for the
destination node suitable for communicating over the public network.

20 8. A method for communicating between a first private network and a second
private network that uses a public network infrastructure, comprising:

receiving a packet from a source node in the second private network;

determining whether the packet is destined for the second private network; and
forwarding the packet to a destination node in the first private network based on the
determination.

5 9. The method of claim 8, said forwarding comprising:
obtaining an address mapping corresponding to a router node based on the determination;
sending the packet to the router node using the address mapping, wherein the router node
forwards the packet to the destination node based on an internal address in the packet for the
destination node suitable for communicating among nodes in the first private network.

10 10. The method of claim 9, said sending further comprising:
adding, to the packet, an external address for the router node suitable for communicating
over the public infrastructure.

15 11. The method of claim 9, said sending further comprising:
encrypting the packet.

12 12. The method of claim 9, said obtaining comprising:
accessing the address mapping based on a determination that the packet is not destined
20 for the second private network.

13. The method of claim 8, said determining comprising:

determining whether an address mapping exists for a destination address in the packet.

14. A method for communicating between a first private network and a second private network that uses a public network infrastructure, comprising:

5 receiving a packet from a source node in the second private network;

determining whether the packet is destined for the second private network;

obtaining an address mapping corresponding to a router node based on the determination;

10 sending the packet to the router node using the address mapping, wherein the router node forwards the packet to a destination node in the first private network based on an internal address in the packet for the destination node suitable for communicating among nodes in the first private network.

15. An apparatus for communicating between a first private network and a second private network that uses a public network infrastructure, comprising:

15 a memory having program instructions; and

a processor responsive to the program instructions to receive a packet from a source node in the first private network, determine whether the packet is destined for the second private network, and forward the packet to a destination node in the second private network based on the determination.

20 16. An apparatus for communicating between a first private network and a second private network that uses a public network infrastructure, comprising:

a memory having program instructions; and
5 a processor responsive to the program instructions to receive a packet from a source node in the second private network, determine whether the packet is destined for the second private network, and forward the packet to a destination node in the first private network based on the determination.

17. A computer-readable medium containing instructions for performing a method for communicating between a first private network and a second private network that uses a public network infrastructure, the method comprising:

10 receiving a packet from a source node in the first private network;
determining whether the packet is destined for the second private network;
obtaining an address mapping corresponding to a destination node in the second private network based on the determination; and
15 sending the packet to the destination node using the address mapping, the address mapping reflecting a relationship between an internal address for the destination node for use in communicating among nodes in the second private network and an external address for the destination node suitable for communicating over the public infrastructure.

18. The computer-readable medium of claim 17, said sending further comprising:
20 adding the external address to the packet.

19. The computer-readable medium of claim 17, said sending further comprising:

encrypting the packet.

20. The computer-readable medium of claim 17, said obtaining comprising:
accessing the address mapping based on a determination that the packet is destined for the
5 second private network.

21. The computer-readable medium of claim 17, said determining comprising:
determining whether an address mapping exists for a destination address in the packet.

10 22. A computer-readable medium containing instructions for performing a method
for communicating between a first private network and a second private network that uses a
public network infrastructure, the method comprising:
receiving a packet from a source node in the second private network;
determining whether the packet is destined for the second private network;
15 obtaining an address mapping corresponding to a router node based on the determination;
sending the packet to the router node using the address mapping, wherein the router node
forwards the packet to a destination node in the first private network based on an internal address
in the packet for the destination node suitable for communicating among nodes in the first private
network.

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23. The computer-readable medium of claim 22, said sending further comprising:
adding, to the packet, an external address for the router node suitable for communicating

over the public infrastructure.

24. The computer-readable medium of claim 22, said sending further comprising:
5 encrypting the packet.

25. The computer-readable medium of claim 22, said obtaining comprising:
10 accessing the address mapping based on a determination that the packet is not destined
for the second private network.

10 26. The computer-readable medium of claim 22, said determining comprising:
determining whether an address mapping exists for a destination address in the packet.

15 27. An apparatus for communicating between a first private network and a second
private network configured from nodes in a public network infrastructure, comprising:
means for receiving a packet from a source node in the first private network;
means for determining whether the packet is destined for the second private network;
means for obtaining an address mapping corresponding to a destination node in the
second private network based on the determination; and
means for sending the packet to the destination node using the address mapping, the
20 address mapping reflecting a relationship between an internal address for the destination node for
use in communicating among nodes in the second private network and an external address for the
destination node suitable for communicating over the public infrastructure.

28. The apparatus of claim 27, said means for sending further comprising:
means for adding the external address to the packet.

5 29. The apparatus of claim 27, said means for sending further comprising:
means for encrypting the packet.

10 30. The apparatus of claim 27, said means for obtaining comprising:
means for accessing the address mapping based on a determination that the packet is
destined for the second private network.

15 31. The apparatus of claim 27, said means for determining comprising:
means for determining whether an address mapping exists for a destination address in the
packet.

20 32. An apparatus for communicating between a first private network and a second
private network configured from nodes in a public network infrastructure, comprising:
means for receiving a packet from a source node in the second private network;
means for determining whether the packet is destined for the second private network;
means for obtaining an address mapping corresponding to a router node based on the
determination;
means for sending the packet to the router node using the address mapping, wherein the

router node forwards the packet to a destination node in the first private network based on an internal address in the packet for the destination node suitable for communicating among nodes in the first private network.

5 33. The apparatus of claim 32, said means for sending further comprising:
means for adding, to the packet, an external address for the router node suitable for communicating over the public infrastructure.

10 34. The apparatus of claim 32, said means for sending further comprising:
means for encrypting the packet.

15 35. The apparatus of claim 32, said means for obtaining comprising:
means for accessing the address mapping based on a determination that the packet is not destined for the second private network.

20 36. The apparatus of claim 32, said means for determining comprising:
means for determining whether an address mapping exists for a destination address in the packet.

25 37. A method for communicating between a first private network and a second private network configured from nodes in a public network, comprising:

receiving, at a router node, a first packet from a source node in the first private network,

wherein the router node facilitates connection between the first private network and the second private network;

5 determining whether the first packet is destined for the second private network;

obtaining an address mapping corresponding to a destination node in the second private network based on the determination;

10 sending the packet to the destination node using the address mapping, the address mapping reflecting a relationship between an internal address for the destination node for use in communicating among nodes in the second private network and an external address for the destination node suitable for communicating over the public infrastructure;

15 receiving a second packet from a source node in the second private network;

determining whether the second packet is destined for the second private network;

obtaining an address mapping corresponding to the router node based on the determination that the second packet is not destined for the second private network; and

15 sending the packet to the router node using the address mapping corresponding to the router node, wherein the router node forwards the packet to a destination node in the first private network based on an internal address in the second packet for the destination node suitable for communicating among nodes in the first private network.